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A Component Expansion of the Temperature-Dependent Saturation Magnetization of a Ferrimagnetic Fraction of Rocks

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Abstract

A method proposed for the expansion into components of the temperature-dependent saturation magnetization Is(T) of rock samples containing several ferrimagnetic phases is based on the assumption of the additive summation of the phase saturation magnetizations. The model dependencies describing experimental curves of Is(T) are considered. The sampling technique was tested on samples with known ferrimagnetic composition. The method can be applied to quantitative analysis of a multiphase rock fraction.